

SEVEN NEW SPECIES OF *OZOPHORA* FROM THE
WEST INDIES WITH NOTES ON SOME
PREVIOUSLY DESCRIBED SPECIES
(HEMIPTERA: LYGAEIDAE)

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Abstract.—Seven new species of *Ozophora* are described from the West Indies: *hispaniola*, *testacea*, *caliginosa*, *darlingtoni* and *pusilla* from Hispaniola, *alayo* from Cuba and *coleoprata* from several islands in the Bahamas and from the Caicos Islands. A discussion of species living in montane habitats on Hispaniola and of a flightless species from low elevations in the Turks and Caicos and Bahamas is included. Dorsal view figures are given for *hispaniola* and *coleoprata*. *Ozophora caroli* Slater and Baranowski is reported from the West Indies for the first time, from Grand Cayman and Hispaniola. *Ozophora cubensis* Barber is redescribed, corrections made in the labeling of the original type series, and variation and relationships discussed.

In my discussion of the zoogeography of the Lygaeidae of the West Indies (Slater, 1988) I included a checklist of species and used this checklist as the source for the numerical summaries in the paper. Several species of *Ozophora* were listed that had not been published. This paper treats these species and includes descriptions and comments on several previously described species.

Unfortunately several taxa are known from single specimens or from only one sex. In a number of cases I had recognized these taxa as distinct some years ago but withheld formal description in the hope of obtaining additional material. In the case of the species from the higher mountains of Hispaniola this has not occurred. The specimens from there were collected by the late P. J. Darlington half a century ago. Despite the literally thousands of specimens of *Ozophora* that I have examined from the islands not a single additional specimen has been obtained. Given the extensive deforestation of this island it is quite possible they are extinct, or if not, are confined to an extremely limited area. Since montane West Indian organisms often are of particular phylogenetic importance it seems especially appropriate that such taxa be formally recognized.

The genus *Ozophora* has radiated extensively in the West Indies. With the inclusion of the species described in this paper 35 species are now known from the islands out of a total fauna of 74 described species. This however is misleading as there remain a considerable number of undescribed species from Mexico, Central America and South America.

Although no formal cladistic analysis has been completed it is obvious that many West Indian endemics have their sister species on the mainland. Many species of *Ozophora* are vagile, fly readily and presumably are good colonizers. While it would be presumptuous to maintain that some speciation has not been due to island to island vicariance I see no evidence at this time that points in any way to island-mainland vicariance.

Ozophora hispaniola, new species

Fig. 1

Description. Body relatively broad, stout, robust. Coloration extremely variegated. Head nearly uniformly reddish brown with tylus pale, pronotal calli broad reddish brown becoming nearly black anteriorly and laterally. Explanate margins of anterior pronotal lobe testaceous yellow; anterior collar dark chocolate brown to black except for an elongate testaceous dash on either side of midline; posterior pronotal lobe mottled with testaceous and reddish brown, latter covering most of distal half except posteriorly on humeri, mesally testaceous but with a dark brown macula along posterior margin. Scutellum dark brown with a slightly lighter pale median stripe, apex pale and an irregular diverging testaceous vitta midway between meson and lateral margins. Hemelytra variegated with testaceous and dark chocolate brown, clavus with a conspicuous dark spot adjacent to apex of scutellum, corium with a large dark quadrate spot proximally at level of distal third of scutellum, a broad costal patch midway along corium reaching lateral margin, apex of corium with a large dark spot and extensively suffused with chocolate brown near inner angle around a pale patch. Membrane largely smoky brown with strongly contrasting pale yellow veins. First, second and third antennal segments pale testaceous with distal ends contrastingly dark brown; fourth segment with a white annulus on proximal half, distal half dark chocolate brown as is extreme proximal end. Ventral and pleural surfaces nearly uniformly dark red brown. Acetabula testaceous. Legs and labium pale yellow, a prominent dark brown annulus near distal end of middle and hind femora. Second and third tarsal segments dark brown. Thickly clothed above with numerous short semidecumbent silvery to testaceous hairs (examine in lateral view).

Head acuminate. Tylus strongly tapered reaching midway to distal end of first antennal segment. Vertex convex. Eyes sessile. Length head 0.80, width 0.90, interocular space 0.45. Pronotum broad, subquadrate, lateral margins strongly calloused appearing explanate, particularly on anterior lobe, transverse impression obsolete mesally, posterior margin straight, calli prominent, strongly convex, nearly confluent mesad. Length pronotum 1.02, width 1.55. Scutellum shallowly concave mesally on proximal half. Length scutellum 0.88, width 0.88. Hemelytra with lateral corial margins shallowly sinuate, strongly explanate but not reflexed. Length claval commissure 0.73, midline distance apex clavus–apex corium 1.05, midline distance apex corium–apex membrane 0.80. Metathoracic scent gland auricle conventional but tapered, not curved posteriorly. Middle and hind femora each armed below with two series of prominent sharp acute spines, each row consisting of seven to eight spines, hind femora also bearing two or three similar spines on dorsal surface distally. Middle and hind tibia with three to four rows of prominent sharp spur-like spines. Fore femora strongly incrassate, armed below with seven large sharp tuberculate spines extending from nearly proximal end to distal end. Labium elongate extending well between and slightly beyond metacoxae, first segment about attaining base of head. Length labial segments (from paratype) I 1.02, II 1.05, III 0.82, IV 0.25. Antennae slender, terete, third segment not conspicuously fusiform. Length antennal segments I 0.52, II 1.20, III 1.00, IV 1.20. Total body length 5.04.

Holotype. Male HAITI: Port au Prince, Thor. 10–12.X.1970 (J. D. Porter) (black light trap). In National Museum of Natural History (USNM).

Paratypes. HAITI: 1 female Diquini (W. M. Mann). DOMINICAN REPUBLIC:

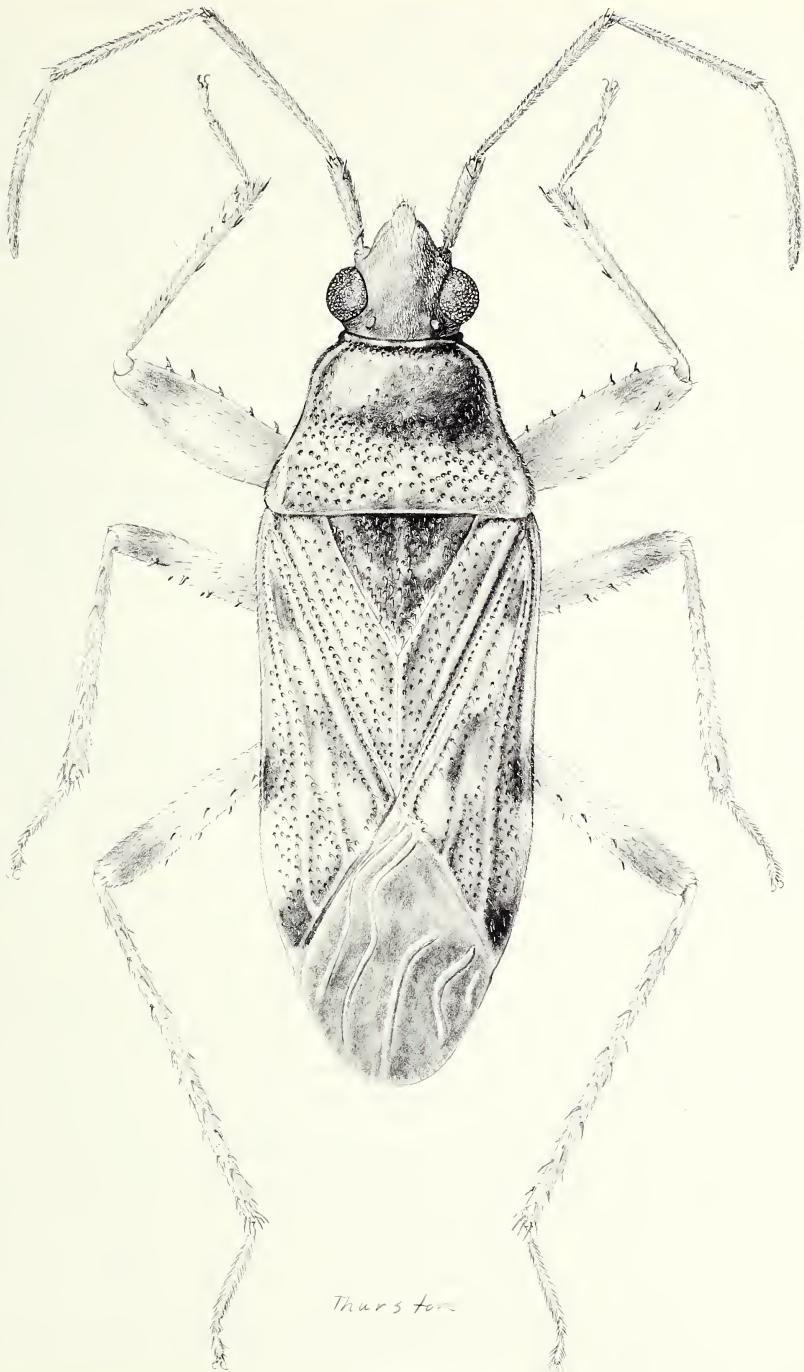


Fig. 1. *Ozophora hispaniola*, dorsal view.

1 male S. Domingo D.R. 9.X.1966 (L. H. Rolston). 1 male same 30.III.1966. 1 male St. Domingo S Francisco Mts. 14.IX.1905 (Aug. Busck). 1 male, 2 females St. Domingo 8.XI.1981 (H. Dominguez). 1 female same 27.XII.1981. 2 males, 3 females Altagracia, Nisibon 8.VI.1976 (R. E. Woodruff) (black light trap). 7 males, 1 female same locality 8-10.VI.1976 (R. E. Woodruff, E. E. Grissell) (malaise trap). 1 female San Jose Dolas Matas 1,000-2,000' June '38 (Darlington). 1 female San Lorenzo 24-26.VI.1915. 1 female Santo Domingo 12.VIII.1967 (J. C. Schaffner) (at black light). In National Museum of Natural History (USNM), American Museum of Natural History, Texas A&M University, Florida State Collection of Arthropods, Instituto Biologia UNAM Mexico, J. A. Slater and R. M. Baranowski collections.

Discussion. There is a great deal of color variation in the type series but almost no variation in structural details other than that some individuals have a slightly longer labium that extends well onto the abdomen. In older specimens the dark chocolate brown areas indicated in the description above usually are reddish brown color, often ferruginous. This may be the result of fading or these may have been paler specimens.

This is a very distinctive species because of the short but distinct hairs on the dorsal surface, the broad subquadrate pronotum and particularly by the unusual spines ventrally on the middle and hind femora. Despite its unique appearance *hispaniola* appears to be part of the *burmeisteri* complex.

Ozophora testacea, new species

Description. Body relatively short, robust. Head, anterior pronotal lobe, thoracic pleura and scutellum dark chocolate brown. Scutellum with a pair of diagonal pale yellow vittae present. Remainder of body including legs and antennae uniformly pale yellowish brown with darker punctures. No trace of proximal pale annulus present on antennal segment four. Pale anterior pronotal collar and lateral margins of anterior pronotal lobe contrasting strongly with chocolate brown coloration of remainder of anterior lobe and adjacent propleuron. Lacking upstanding dorsal hairs.

Head broad, short, tylus slightly declivent anteriorly, eyes only slightly removed from anterior margin of pronotum, vertex moderately convex, tylus at most extending anteriorly to middle of first antennal segment. Length head 0.92, width 1.04, interocular space 0.50. Lateral margins of pronotum strongly ridged; anterior pronotal lobe swollen, at least as elevated as posterior lobe; posterior margin straight. Length pronotum 1.0, width 1.40. Length scutellum (from paratype) 0.98, width 1.04. Hemelytra nearly parallel sided, very slightly sinuate. Length claval commissure 0.86. Midline distance apex clavus-apex corium 1.36. Midline distance apex corium-apex membrane 0.64. Metathoracic scent gland auricle straight or slightly bent posteriorly and truncated at distal end. Evaporative area occupying inner two-thirds of metapleuron. Fore femur moderately incrassate armed below distally with four large sharp spines, and two additional smaller spines, proximad of former. Labium elongate, slightly exceeding posterior margins of metacoxae. Length labial segments I 0.92, II 0.98, III 0.78, IV 0.42. Length antennal segments I 0.60, II 1.50, III 1.24, IV 1.50. Total body length 5.60.

Holotype. Male HAITI: Maneville, 18.II.1922, about 60 ft alt. F, 4636. In American Museum on Natural History.

Paratypes. HAITI: 1 male, 6 females same data as holotype. 2 females same data

except 6–10.II.1922. 1 female Maneville (Mann). 1 male, 1 female Fond Parisien 11–18.II.192, “about 60 ft alt. F, 4632. L” DOMINICAN REPUBLIC: 1 male Barahona, IX.1938 (Darlington). In American Museum of Natural History and J. A. Slater collections.

Discussion. This is a very distinctive easily recognized species by virtue of the dark head and anterior pronotal lobe that contrast strikingly with the uniformly dull yellow coloration of the remainder of the body and the appendages. It does not appear to be closely related to any of the other species of *Ozophora* but perhaps *atropicta* may be its closest relative.

***Ozophora caliginosa*, new species**

Description. Elongate, relatively slender nearly parallel sided. Head and anterior pronotal lobe dark chocolate to reddish brown. Pronotum with pale yellow markings as in *darlingtoni*. Scutellum reddish brown with a moderately elongate pale yellow vitta adjacent to each lateral margin. Clavus infuscated with brownish but not forming a distinct fascia. Corium strikingly alternated with dark reddish brown and almost white coloration. Dark brown markings as follows: a very broad complete transverse fascia across corium at level of distal end of claval commissure, extending along claval suture midway to base of corium, this fascia narrowing laterally but reaching lateral corial margins; a smaller dash present at level of apical third of scutellum lying immediately within corial groove, a small but distinct apical corial patch leaving apical corial margin exposed, latter brown on inner half and strikingly reddish on posterior half. Membrane dark brown with veins paler and a large white distal or apical end. Entire fore femora, distal third to half of middle and hind femora dark chocolate brown, remainder of legs pale yellow. First antennal segment also dark chocolate brown, concolorous with head and strikingly contrasting with pale yellow second segment. Dorsal surface without conspicuous upstanding hairs. Pronotal calli prominent, impunctate. Punctures on posterior pronotal lobe small and widely separated, those of corium and clavus typical of genus.

Head nondeclivent, tylus not attaining distal end of first antennal segment, vertex only moderately convex, eyes set well away from antero-lateral pronotal angles. Length head 0.96, width 1.06, interocular space 0.48. Pronotum with lateral margins deeply sinuate, prominently calloused; transverse impression deep and complete; a line of punctures present between calli; posterior lobe slightly elevated above anterior with posterior margin slightly sinuate or concave. Length pronotum 1.08, width 1.74. Length scutellum 1.14, width 0.96. Hemelytra nearly linear, lateral corial margins very slightly expanded evenly from base to near distal end. Length claval commissure 0.98. Midline distance apex clavus–apex corium 1.60, midline distance apex corium–apex membrane 1.20. Length labial segments I 0.90, II 0.98, III 0.78, IV 0.48. Length antennal segments I 0.78, II 1.68, III and IV missing. Total body length 6.80.

Holotype. Female HAITI: Furey (Mann coll.). In American Museum of Natural History.

Discussion. This is another of the large elongate montane species from the Greater Antilles. It has the general overall appearance of *darlingtoni* but differs in a number of significant details. The first antennal segment is conspicuously black. The lateral margins of the pronotum are deeply sinuate. There is a complete dark fascia running across the corium and the fore femora are completely dark and the middle and hind

femora darkened on the distal third to half rather than having strongly contrastingly banded femora as does *darlingtoni*. The holotype also has two distinct sharp spines ventrally on the distal portion of the hind femora. It is unfortunate that this striking species is known only from a single female.

In the American Museum of Natural History collections there is a female from the Dominican Republic labeled "Constanza 21 Aug.-38 3-4; 1000 ft. Darlington" which somewhat resembles this species. It agrees in having the dark first antennal segment and in the general overall coloration but is a much lighter species with a reddish brown rather than dark chocolate coloration, the corium does not have a complete fascia, the fore femora are not completely darkened and the middle and hind femora have only a distal banding. It does, however, closely resemble *caliginosa* in the shape of the apical dark macula on the corium and in having the apical corial margin red on the posterior half. This is also a female, and may well prove to be conspecific but is not included as a paratype at this time. This specimen does have all four antennal segments, the third segment is pale on the proximal three-fourths with a dark distal end, and the fourth segment has a conspicuous large white annulus occupying nearly all of the proximal half of the segment, the distal portion being chocolate brown.

***Ozophora darlingtoni*, new species**

Description. Head dark chocolate brown, pronotum and scutellum chiefly bright reddish brown. Pronotum marked with yellow maculae as follows: an oblique spot on either side of midline on pronotal collar and a short dash midway between meson and lateral margin on posterior pronotal lobe beginning at transverse impression and extending to middle of lobe; four irregular spots along posterior margin, a lateral spot at humeri and one on either side of midline midway between meson and humeral angles. Scutellum becoming darker red brown on distal half with a pair of short oblique pale yellow maculae near lateral margins midway between base and apex. Hemelytra chiefly pale yellow, nearly white, marked with dark brown as follows: a large area adjacent to inner angle of corium extending anteriorly nearly to proximal end of claval commissure, a small oblique spot at level of distal third of scutellum immediately mesad of corial furrow, a small spot along lateral margin at level of apex of claval commissure and a large irregular apical corial maculae, latter not covering but slightly invading adjacent apical corial margin. Membrane dark brown with veins obscurely pale yellow, lacking a white vitta mesally at distal end. Legs pale yellow with distal third of each femur with a very conspicuous strongly contrasting dark brown annulus. First and second antennal segments pale yellow, proximal three-fourths of third segment pale shading to dark chocolate distally, fourth segment with a broad white annulus occupying nearly entire proximal half of segment, distal half of fourth segment dark chocolate brown. Dorsal surface lacking upstanding hairs but with a minute silvery decumbent hair arising from each puncture, the latter relatively small and obscure; claval and corial punctures typical for genus.

Head relatively small, tylus not attaining distal end of first antennal segment, vertex moderately convex, eyes set well away from anterior lateral pronotal angles. Length head 1.08, width head 1.52, interocular space 0.50. Pronotum strongly expanded from anterior to posterior margins, lateral margins obscurely but definitely calloused, transverse impression shallow, posterior margin nearly straight or very slightly con-

cave, posterior lobe raised somewhat above anterior, calli with a few scattered punctures present. Length pronotum 1.30, width 2.14. Length scutellum 1.22, width 1.10. Length claval commissure 1.16. Corium rather evenly expanded from base to near distal end giving insect a broadened appearance from pronotum posteriorly. Midline distance apex clavus–apex corium 1.70, midline distance apex corium–apex membrane 1.40. Metathoracic scent gland auricle short, stout, not strongly curving posteriorly. Fore femora only moderately incrassate, each femur armed below on distal third with three sharp ventral spines. Labium extending well beyond mesocoxae almost, or reaching metacoxae. Length antennal segments I 0.74, II 1.84, III 1.44, IV 1.54. Length labial segment I 1.00. Total body length 7.76.

Holotype. Male HAITI: Lavisite & vic LaSelle Range 5–7,000 ft 16–23.IX.1934 (Darlington). In American Museum of Natural History.

Paratype. 1 female same data as holotype. In J. A. Slater collection.

Discussion. Paramere somewhat resembling that of *O. nitida* in that the inner tooth is large, blocky and strongly down-curved and the inner margin of the paramere is conspicuously concave at the base of the blade with the inner tooth convex along the dorsal margin and the outer projection rounded and not strongly produced.

This is a large strikingly colored species readily recognizable by the unusual shape of the pronotum and the somewhat expanded distally shaped hemelytra. The strongly banded femora are also conspicuous. It seems to be most closely related to *caliginosa* also known only from the mountains of Hispaniola.

As with a number of other species this striking insect is an example of the montane endemism present in the genus in the Greater Antillies.

This species is named in honor of the late Dr. Philip Darlington of the Museum of Comparative Zoology Harvard University who collected the type series and for his many important contributions to the systematics and biogeography of the West Indies.

***Ozophora pusilla*, new species**

Description. Very small, slender, nearly parallel sided. Dark chocolate brown as follows: head; anterior pronotal lobe; a series of longitudinal stripes on posterior lobe that form three distinct “loops” by coalescence of the stripes posteriorly; scutellum with exception of a small yellow macula on either side of midline and white apex; a diffuse streak on clavus adjacent to claval commissure; a small spot on corium immediately within corial furrow at level of distal one-fourth of scutellum; a complete transverse corial macula that narrows markedly to lateral margin and extends as a narrow stripe along apical corial margin to join with large apical corial spot; membrane with exception of veins and a conspicuous pale ovoid apical spot; entire thoracic pleura and sterna with paler acetabula and with posterior margin of metapleuron white. Pronotal collar dark brown mesally with a pale spot on either side. Pale dorsal areas ranging from yellowish on pronotum, scutellum and anterior portion of corium to white macula posteriorly. Legs and labium nearly uniformly pale yellow, former with a trace of an annulus near distal end of each femur and distal two-thirds of tarsal segment three chocolate brown. Fourth labial segment darkened. First antennal segment bright red, segments two and three yellow becoming infuscated distally, segment four with proximal one-half white, distal one-half chocolate brown. Dorsal surface nearly glabrous, lacking upstanding hairs.

Head relatively large, non-declivent, tylus attaining middle of first antennal segment, eyes set far away from anterior margin of pronotum, vertex nearly flat. Length head 0.74, width 0.70, interocular space 0.34. Anterior pronotal lobe narrow, nearly parallel sided, posterior lobe conspicuously elevated above anterior lobe, evenly expanded to humeri; transverse impression complete, posterior margin straight. Length pronotum 0.82, width 1.12. Length scutellum 0.60, width 0.52. Length claval commissure 0.60. Midline distance apex clavus–apex corium 1.06. Midline distance apex corium–apex membrane 0.64. Middle of mesosternal shining plate with a conspicuous fringe of silvery hairs. Metathoracic scent gland auricle acute distally, slightly curved posteriorly. Fore femora slender, each femur with two small acute ventral spines distally placed. Labium almost attaining mesocoxae. Length labial segments I 0.50, II 0.48, III 0.34, IV 0.32. First antennal segment relatively very large and thickened, diameter as great as that of fore femur, segments two and three slender and terete, segment four narrowly fusiform. Length antennal segments I 0.58, II 1.50, III 1.20, IV 1.18. Total body length 4.48.

Holotype. Male, DOMINICAN REPUBLIC: Peravia, 16 km E San Jose da Ocoa, 8. VIII. 1979 (L. & C. O'Brien). In American Museum of Natural History.

Discussion. Although this small species scarcely exceeds in length most members of both the *laticephal* and *pallescens* complexes it is not closely related to either but rather resembles such elongate slender boldly marked species as *versicolor* and several as yet undescribed species from Mexico.

The strikingly enlarged and red colored first antennal segment will readily separate it from any other species in the West Indies. Although described from a single specimen it undoubtedly is a distinct species.

Two females from Jamaica (Portland, Hardwar Gap, and Manchioneal) in rather poor condition are either conspecific or represent a very closely related species. One of these lacks antennae, the other has one first antennal segment present which is dark brown rather than red. The hemelytral coloration is as in the holotype of *pusilla* but the posterior pronotal lobes are heavily suffused with red brown so that the definite open "loops" of the holotype are not present.

***Ozophora alayoi*, new species**

Description. Moderately robust. Head, anterior pronotal lobe, greater portion of posterior pronotal lobe and scutellum, a complete transverse hemelytral fascia, an apical corial macula and all but distal end of membrane bright red brown. Posterior pronotal lobe with a narrow pale yellow median line, two yellow spots on either side of midline immediately behind transverse furrow, and four spots along extreme posterior margin. Scutellum with two short diagonal streaks. Hemelytra other than as noted above chiefly pale yellow; large distal corial macula almost white as is apical end of membrane. Legs and antennae chiefly pale yellow. Hind femur with a diffuse subdistal brown annulus. First antennal segment reddish brown, fourth segment dark brown with a moderately contrasting pale subbasal annulus.

Dorsal surface shining, polished, lacking upstanding hairs.

Head rather acuminate, not declivent, tylus attaining middle of first antennal segment, length of head anterior to compound eye considerably greater than length of eye, latter slightly removed from anterior margin of pronotum. Vertex not strongly convex. Length head 0.86 width 0.86; interocular space 0.40. Calloused lateral mar-

gins of pronotum relatively weakly developed, especially on anterior lobe. Transverse impression complete but shallow. Calli smooth, impunctate, scarcely depressed across midline; posterior margin slightly sinuately concave before scutellum. Length pronotum 0.94, width 1.40. Length scutellum 0.80, width 0.74. Length claval commissure 0.70. Midline distance apex clavus–apex corium 1.20. Midline distance apex corium–apex membrane 0.90. Metathoracic scent gland auricle short, straight, subtruncate distally; evaporative area little differentiated from remainder of pleuron but apparently occupying most of the inner three-fourths of metapleuron. Fore femora moderately incrassate, armed distally below with three major spines, a minute spine distad of these and a hair spine proximad. Labium obscured but first segment attaining base of head. Length labial segment I 0.78. Length antennal segments I 0.50, II 1.30, III 1.10, IV 1.32. Total body length 5.28.

Holotype. Female, CUBA: Prov. Pinar del Rio, Vinales, 220 m, 23.VI.1966 (F. Gregor). In Brno Museum (Czechoslovakia).

Discussion. While I have some reluctance to describe a new species from a single female it seems obvious that this specimen does not represent any described species of *Ozophora* and does not in anyway appear to be abnormal.

O. alayoi appears to be most closely related to *O. floridana* Slater and Baranowski. It is readily distinguishable by the much longer head (head anterior to eye subequal to eye length in *floridana*), the thicker, darkened first antennal segment and the shining dorsal body surface. *O. alayoi* has a much darker posterior pronotal lobe than does *floridana* but this feature may prove to be variable when a series of the former is available for study.

It is a pleasure to dedicate this handsome new species to Dr. Alayo in recognition of his many important contributions to Cuban Hemipterology.

***Ozophora coleoptrata*, new species**

Fig. 2

Description. Body surface chiefly dark chocolate brown. Contrasting pale yellow markings present as follows: pronotal collar on either side of dark meson, a longitudinal stripe on either side of midline of posterior pronotal lobe, a small spot laterad of this stripe immediately behind transverse impression and humeral angles; a pair of small diagonal scutellar dashes and apex of scutellum; raised cubital vein on clavus; corium laterad of furrow from base to level of distal end of claval commissure. Legs, antennae, fore and hind coxae and anterior half of mesocoxae also uniformly pale yellow. Dorsal surface with scattered but elongate upstanding hairs present.

Head large, slightly declivent anteriorly, tylus attaining middle of first antennal segment; eyes set only slightly away from anterior pronotal margin. Length head 0.74, width 0.82; interocular space 0.40. Lateral pronotal margins strongly sinuate, narrowly calloused. Calli swollen, almost contiguous across meson, more elevated than posterior pronotal lobe, latter with posterior margin concave. Transverse impression complete but shallow and coarsely punctate. Length pronotum 0.78, width 1.14. Length scutellum 0.66, width 0.58.

Clavus and corium fused but former recognizable and apparently not reduced. Corium slightly convex along lateral margin, attaining maximum width at approximately level of distal end of claval commissure, reaching posteriorly to anterior margin of abdominal tergum six. Membrane not extending caudad of apex of corium,

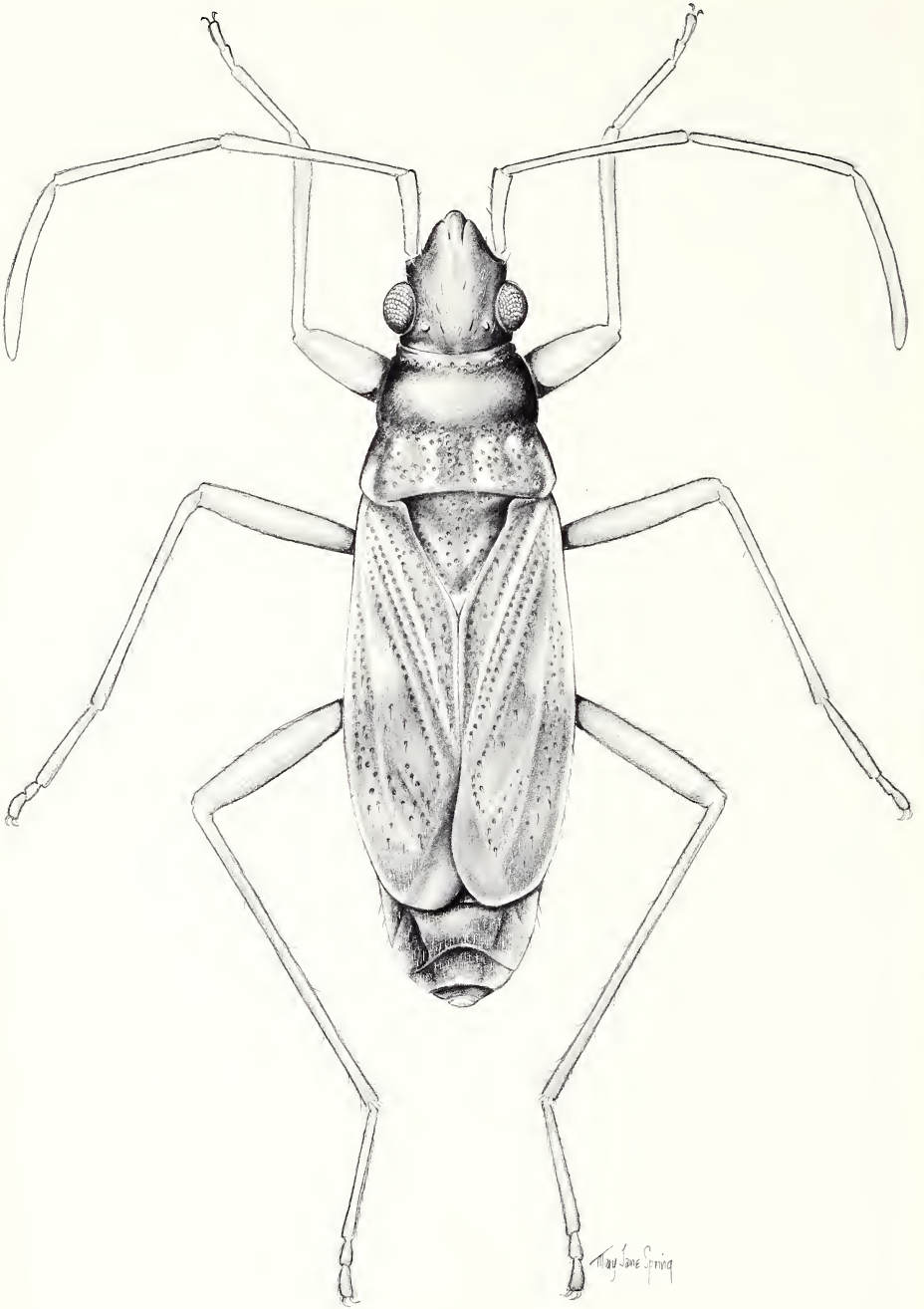


Fig. 2. *Ozophora coleoprata*, dorsal view.

consisting of a broad "flap" along apical corial margin, the two membranes partially overlapping. Length claval commissure 0.80. Maximum length corium 2.36. Midline distance apex clavus-apex corium 0.82. Metathoracic scent gland auricle elongate, slender, "finger-like," slightly angled posteriorly. Evaporative area occupying entire inner two-thirds of metapleuron, its outer margin straight. Fore femur slightly incrassate armed below distally with three short blunt non-acute "spines" with a proximally located "hair spine" present. Labium attaining metacoxae. Length labial segments I 0.60, II 0.66, III 0.52, IV 0.38. Length antennal segments I 0.50, II 1.04, III 0.98, IV 1.18 (approx.). Total body length 4.48.

Holotype. Female BAHAMAS: *Inagua Island*, VII.1938 (McLean and Shreve). In American Museum of Natural History.

Paratypes. BAHAMAS: 1 female *N Bimini I*, Alicetown. 1 male *Great Inagua I*, Matthew Town, 31.I.1953 (E. B. Hayden and G. B. Rabb) (Van Voast-AMNH Bahama Isls. Exped.). 1 female *Turks and Caicos Isls.* Cays 3.5 m SW North Caicos Island 28.II.1953 (L. Giovannoli and G. B. Rabb) (Van Voast-AMNH Bahama Isls. Exped.).

Other material examined. MEXICO: 1 male *Puerto Morelos (Q.R.)*, 7.VIII.1974 (night) (C. & L. O'Brien and Marshall). In American Museum of Natural History and J. A. Slater collections.

Discussion. There is considerable variability in the type series. Perhaps the most important difference is the condition of the fore femoral spines between the holotype and most of the paratypes. The paratype from Great Inagua has four acute spines nearly equidistantly spaced from one another on the left femur and occupying all but the proximal one-fourth of the femur and three on the right femur followed by a series of hairs. The Turks and Caicos paratype has two sharp spines on the left femur followed by a series of hair spines and those on the right with a hair spine series. The paratype from N Bimini has five small but sharp distinct spines on each femur. The Mexican specimen has four minute but acute spines on each femur. The spine pattern obviously varies. It resembles *burmeisteri* in that most specimens have a series of nearly equidistantly placed spines along a considerable portion of the ventral femoral surface rather than having the spines restricted to the distal fourth as in many species of *Ozophora*. It is important to note that all of these specimens have minute spines as compared with macropterus *burmeisteri*.

There is essentially no variation in the type or degree of coleoptery. There is, however, considerable variation in color. The holotype is considerably darker than the paratypes which show an almost graded series as follows: The lateral areas of the corium become pale yellow; the outer two-thirds of the clavus becomes yellow; the outer spot at the transverse pronotal furrow elongates to become a second longitudinal pale stripe; the dark areas of the hemelytra become restricted to the membrane and adjacent areas of the corium; the lateral margins of the posterior pronotal lobe become pale until finally in the Bimini paratype the hemelytra are completely pale yellow and the posterior pronotal lobe is conventionally so, only faint brown striping indicating the darkened areas of other specimens. Whether these color differences will prove to be of geographic significance must of course await adequate series. It should be noted that the two specimens from Inagua are much darker than any of the others.

For a number of years I have held this series of small coleopteroid female specimens from several islands of the Bahamas in the hope of obtaining a series, a male or some

biological information. More recently the O'Briens have sent me the additional female from Mexico.

Originally I believed these specimens to represent coleopters of *O. burmeisteri* since they have upstanding hairs on the dorsal surface and were from the Bahamas where *burmeisteri* is a common species. This may still prove to be the case but there are several circumstances that suggest otherwise.

The reasons I am not willing to treat the coleopteroids listed below as representing *burmeisteri* are essentially these. 1.) All five of these coleopters have the fourth antennal segment uniformly pale yellow with no trace of a subbasal white annulus. This is true even of two specimens that have a largely dark chocolate brown dorsal surface. By contrast, of the several hundred macropterous specimens of *burmeisteri* examined all have a strongly contrasting white annulus basally on the fourth antennal segment. 2.) Although *burmeisteri* is widespread in the northern West Indian islands and occurs in Florida (it comes to lights readily) I have not seen a specimen from Mexico or Central America yet one of these coleopteroids is from Mexico. 3.) All of the specimens are considerably smaller than macropterous *burmeisteri* females. 4.) It is extremely rare in rhyparochromine Lygaeidae where a macropterous and a flightless stage occurs to have the macropter more common than the flightless form. Yet if these specimens are *burmeisteri* this would seem to be the case (many *burmeisteri* have been taken at lights, which, of course, biases the sample).

The occurrence of a coleopteroid *Ozophora* on low islands of the Bahamas is remarkable in itself. In *Ozophora* the only members of the genus to show any trace of wing reduction are from high elevations (none in the West Indies). Indeed, this is true for the entire tribe in the Western Hemisphere until one reaches temperate latitudes in southern South America and on the Juan Fernandez Islands.

Years ago Dr. P. D. Ashlock was perceptive enough to recognize that a new species was represented as attested by his label on one of the paratypes.

Ozophora caroli, Slater and Baranowski

Ozophora caroli Slater and Baranowski, 1983:422.

The type series of this recently described species was from southern Florida. Slater and Baranowski (1983), however, noted two probably conspecific specimens from Chiapas, Mexico. It appears to be a widespread although rare species as of the several thousand specimens of *Ozophora* examined I have seen only two additional females. One specimen is from Hispaniola, 21 km N Cabo Roso, Prov. Pedernales, 18.VI.1974 (R. E. Woodruff) (Florida Collection of Arthropods), the second from Cayman Islands: Grand Cayman W I. X.5.1980 (West Bay trap X) (M. E. Giglioli coll.) (Ashlock Collection).

Ozophora cubensis, Barber

Ozophora cubensis Barber, 1954:346.

Redescription of holotype. Body moderately elongate, nearly linear. Head and anterior pronotal lobe, including lateral margins, bright reddish brown; anterior collar also reddish brown but contrastingly pale yellow on either side of midline. Posterior pronotal lobe pale with obscure dark rays, these not reaching posterior margin, thus

posterior portion of pronotum a strongly contrasting scalloped yellow stripe. Midline of posterior pronotal lobe pale. Scutellum dark red brown with a yellow macula on either side of midline obscurely produced into a diagonal streak; apex white. Hemelytra variegated, predominantly pale testaceous with an elongate dark brown stripe encircling pale macula at inner angle of corium and extending anteriorly to level of middle of claval commissure. Corium with small apical dark macula and a dark macula along corial margin at level of distal end of claval commissure that does not extend mesally to radius. Apical corial margin pale with posterior one-half to two-thirds crimson or red. Membrane pale fumose, veins in part pale yellow; apex of membrane mesally pale. Pleural and ventral surfaces bright reddish brown. Legs nearly uniformly pale testaceous, fore and mid femora without dark brown subdistal bands, hind femora with a somewhat obsolete dark subdistal annulus present. First, second and most of third antennal segment pale testaceous, third segment dark chocolate brown at distal fourth; fourth segment with a conspicuous white subbasal annulus, remainder of segment dark chocolate brown. Body lacking upstanding hairs on dorsal surface.

Head non-declivent. Tylus moderately acuminate, almost attaining middle of first antennal segment; vertex not strongly convex. Length head 0.84, width 0.94, interocular space 0.46. Pronotum with transverse impression complete, lateral margins sinuate; posterior pronotal lobe only moderately elevated above anterior lobe, posterior margin nearly straight. Length pronotum 1.08, width 1.64. Length scutellum 0.98, width 0.90. Hemelytra with lateral corial margins only very slightly concave or sinuate. Length claval commissure 0.84. Midline distance apex clavus–apex corium 1.46. Midline distance apex corium–apex membrane 1.04. Metathoracic scent gland auricle short, stout, obtusely rounded at distal end, not curving posteriorly. Fore femur moderately incrassate armed below with three long sharp spines with two hair-spines proximally and a short stout additional spine distally (on the left femur the most distal hair-spine is almost as large as the major spines). Labium extending posteriorly only between metacoxae. Length labial segments I 0.74, II 0.76, III 0.58, IV 0.28. Length antennal segments I 0.66, II 1.70, III 1.22, IV 1.32. Total body length 6.24.

Paramere with blade broad basally strongly tapered distally, inner major projection elongate finger-like, distal margin nearly evenly concave, tooth narrow ellipsoidal, basal flange strongly produced forward and upward. Sperm reservoir elliptical, wings strongly tapering and projecting posteriorly not markedly directed laterad.

O. cubensis was described from the mountains of Cuba, most of the type series being from the Sierra Maestra. The original type series consisted of 18 paratypes in addition to the holotype. I have examined the latter and 10 of the paratypes. They are all conspecific but Barber's listing of the data on the labels is somewhat misleading and to avoid future misunderstanding since the red labels say "Paratype" only with no indication of the species the following corrections and amplifications are included.

(1) The label on the holotype differs from Barber's listing in that the word, "J. Acuna" occurs after the year. The date is given as "May 16/48" rather than "May 16, 1948" as listed by Barber. After the elevation the label reads "feet" instead of "Ft. El."

Barber says that seven paratypes have the same data as the holotype but the paratypes before me have a number of label variations as follows:

- 1 male "Sierra Maestra Cuba May 18/48 Elev. 3500-4000 feet C. J. Ferras"
 2 males "Palma Mocha Mt., S. Maestra Cuba May 16/48 Elev. 3900 FT. J. Ferras"
 2 females "P. Mocha-Pico Joaquin, Sierra Maestra May 18/48 J. Acuna Elev. 3900-5300 feet"
 1 female "Palma Mocha Mt., S. Maestra, Cuba May 16/48. J. Acuna 3900-4500 ft. elev."
 1 female "Loma de Cala to P. Mocha, Sierra Maestra, Cuba V/16/48 3600-3900 feet." "J. Ferras Coll."
 1 female as above but no collector label and "May" instead of "V"
 1 male, 1 female as above except "J. Acuna" after "48"
 The "J. A. Ferris" of Barber's listing apparently should be "J. Ferras."

The paratype series does not differ appreciably from the redescription of the holotype given above. In some specimens the pale scutellar vittae do not extend onto the anterior half of the scutellum; sometimes the distal end of the second antennal segment is infuscated and the crimson coloring along the apical corial margin, while always present, is sometimes confined to the outer one-fourth. Specimens from "P. Mocha-Pico" tend to be relatively pale, sometimes with the entire posterior pronotal lobe uniformly pale yellow and the apical dark corial macula reduced to a narrow "dash" along the lateral margin of the corium. The number of spines on the fore femur also varies from three to five, evidently due to the variability in the two most proximal spines. One paratype shows oligomery of the left antennae. Three segments are present, the second segment being much longer than the normal second segment and the terminal segment being considerably longer than the usual fourth segment and with a narrow white annulus present some distance from the base of the segment.

O. cubensis is closely related to *O. subimpicta* Barber but is much larger and more robust. It does have the distal portion of the apical corial margin red but this is never extended across the apex of the corium as a red macula as is frequently the case in *subimpicta*.

I have examined a single male in the American Museum of Natural History from Hispaniola, Loma Rucilla and Mts. N Dom. Rep. June '38, 5-8,000 ft (Darlington) which may represent a distinct species but is closely related to *cubensis* and is not described at this time. This specimen has considerably longer hemelytra relative to the length of the pronotum than is true of any of the type series of *cubensis*. The fourth antennal segment does not have a distinctly differentiated white subbasal annulus and the hemelytral membrane lacks an apical pale macula. I suggest this specimen will ultimately be shown to represent another montane endemic species on Hispaniola.

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